Biosemiotics - study of living systems from a semiotic perspective. Semiotic perspective on living nature in tradition of general semiotics of C. S. Peirce. Sign is a biological adaptation of useful function (pragmatism). Every organism is a sign, and its life cycle is a continuous process of self-interpretation. Semiotic approach as candidate for new paradigm (T. Kuhn) in biology. The role of observer - animals as interpreters of their environment. Umwelt - subjectively interpreted environment (Uexküll). Umwelt is the semiotic world of organism, unites all semiotic processes of an organism into a whole. Organisms are autonomous agents (S. Kauffman) living in their own semiotic Umwelt. Semiotic mechanisms are embedded in a semiosphere (Lotman). Semiosphere is the set of all interconnected Umwelts. Signs are created and shared inside semiosphere. Extended concepts of knowledge, meaning, interpretation, and subject - applicable to both human and non-human actors (autonomous agents). Genes play a dominant role in evolution. Difference between genes (genotype) as information and DNA (material). Organisms as self-reading texts. Symbiotic evolution of organism. Organic codes.